

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. Cancelled.
2. Cancelled.
3. Cancelled.
4. Cancelled.
5. Cancelled.
6. Cancelled.
7. Cancelled.
8. Cancelled.
9. Cancelled.
10. Cancelled.

11. (Currently Amended) A fuel pump for delivering fuel to an internal combustion engine at more than one fuel pressure, the engine having an associated controller controlling operation thereof, comprising:

a fuel inlet and a fuel outlet;

a motor and a pump assembly for drawing fuel through the inlet into the fuel pump and delivering fuel to the outlet at a pressure higher than the pressure at the inlet, the pump assembly having a slot which is in contact with the fuel and the pump assembly having a circuit board;

a processor responsive to an input from the controller to variably control the higher outlet fuel pressure, the processor being mounted on the circuit board positioned within the pump assembly; and,

a pressure sensor sensing the variable pressure of fuel discharged from the pump, the pressure sensor providing an another input to the processor for the processor to determine if the higher outlet fuel pressure is a desired fuel pressure wherein the processor continues to variably control the higher outlet fuel pressure to obtain the desired fuel pressure by controlling speed of the motor such that the higher outlet fuel pressure is a function of the speed of the motor;
and

a transistor electrically connected to the printed circuit board to control the power to the motor, the transistor having a heat sink wherein the transistor partially inserts within the slot so that the heat sink is directly exposed to the fuel via the slot such that the contact between the heat sink and the pumped fuel draw heat energy away from the transistor.

12. (Original) The fuel pump of claim 11 further including an outlet assembly within the fuel pump in which the processor and pressure sensor are installed.

13. Cancelled.

14. (Currently Amended) The fuel pump of claim 43 11 in which the processor is further responsive to the input from the controller to control the duration which the motor runs during a predetermined time interval, the amount of fuel pumped by the fuel pump being a function of the duration.

15. (Currently Amended) The fuel pump of claim 43 11 in which the input from the controller is a binary signal whose value indicates to the processor at which of two outlet pressure levels the fuel pump is to supply fuel.

16. (Currently Amended) The fuel pump of claim 43 11 in which the input from the controller is an analog signal having a predetermined signal characteristic which indicates to the processor at which of two outlet pressure levels the fuel pump is to supply fuel.

17. Cancelled.

18. Cancelled.

19. Cancelled.

20. Cancelled.

21. Cancelled.

22. Cancelled.

23. Cancelled.

24. Cancelled.